

Type...

Type

Digital Single Lens Mirrorless camera

Recording media

XQD Memory Card, SD Memory Card / SDHC Memory Card / SDXC Memory Card

Lens mount

L-Mount

Image Sensor...

Type

35mm full-frame (36.0 x 24.0mm) CMOS sensor

Camera effective pixels / Total pixels

47.30 megapixels / 50.44 megapixels

Aspect ratio / Color filter

3:2 / Primary color filter

Dust reduction system

Supersonic wave filter

Still Image...

Aspect ratio

4:3 / 3:2 / 16:9 / 1:1 / 65:24 / 2:1

Image quality

RAW / RAW+Fine / RAW+Standard / Fine / Standard

Color space

sRGB, AdobeRGB

Still Image: Recording Format...

Still image

JPEG (DCF, Exif 2.31), RAW, HLG Photo (CTA-2072)

6K PHOTO/ 4K PHOTO

6K PHOTO: MP4 (H.265/HEVC, Audio format: AAC (2ch))

4K PHOTO: MP4 (H.264/MPEG-4 AVC, Audio format: AAC (2ch))

Extracted still images: JPEG (DCF, Exif 2.31)

Still Image: File Size (Pixels)...

When using full-frame lenses

3:2

8368x5584(L) / 5952x3968(M) / 4272x2848(S) / 16736x11168(XL) (High Resolution Mode. RAW file.

5184x3456(6K PHOTO) / 3504x2336(4K PHOTO) / 6464x4320(HLG PHOTO, 8K-Res.) /
3232x2160(HLG PHOTO, 4K-Res.)

4:3

7440x5584(L) / 5296x3968(M) / 3792x2848(S) / 14880x11168(XL) (High Resolution Mode. RAW
file.)

4992x3744(6K PHOTO) / 3328x2496(4K PHOTO) / 5760x4320(HLG PHOTO, 8K-Res.) /
2880x2160(HLG PHOTO, 4K-Res.)

Using full-frame lenses (Cont)

16:9

8368x4712(L) / 5952x3352(M) / 4272x2400(S) / 16736x9424(XL) (High Resolution Mode. RAW
file.)

3840x2160(4K PHOTO) / 7680x4320(HLG PHOTO, 8K-Res.) / 3840x2160(HLG PHOTO, 4K-Res.)

1:1

5584x5584(L) / 3968x3968(M) / 2848x2848(S) / 11168x11168(XL) (High Resolution Mode. RAW
file.)

Using full-frame lenses (Cont)

16:9

8368x4712(L) / 5952x3352(M) / 4272x2400(S) / 16736x9424(XL) (High Resolution Mode. RAW
file.)

3840x2160(4K PHOTO) / 7680x4320(HLG PHOTO, 8K-Res.) / 3840x2160(HLG PHOTO, 4K-Res.)

1:1

5584x5584(L) / 3968x3968(M) / 2848x2848(S) / 11168x11168(XL) (High Resolution Mode. RAW
file.)

When using APS-C lenses

3:2

5504x3664(L) / 3920x2608(M) / 2784x1856(S)

4:3

4880x3664(L) / 3472x2608(M) / 2480x1856(S)

16:9

5504x3096(L) / 3840x2160(M) / 1920x1080(S)

1:1

3664x3664(L) / 2608x2608(M) / 1856x1856(S)

Motion Picture...

Recording file format

MP4: H.264/MPEG-4 AVC (Audio format: LPCM (2ch 48kHz/16-bit), AAC (2ch))
AVCHD Progressive (Audio format: Dolby Audio (2ch)), AVCHD (Audio format: Dolby Audio (2ch))

MP4

[4K] 3840x2160
59.94p, 150Mbps (4:2:0 8-bit LongGOP) (LPCM)
29.97p, 100Mbps (4:2:0 8-bit LongGOP) (AAC)
23.98p, 100Mbps (4:2:0 8-bit LongGOP) (AAC)

[FHD] 1920x1080
59.94p, 28Mbps (4:2:0 8-bit LongGOP) (AAC)
29.97p, 20Mbps (4:2:0 8-bit LongGOP) (AAC)

AVCHD Progressive

[FHD] 1920x1080
59.94p, 28Mbps (4:2:0 8-bit LongGOP) (Dolby Audio)
59.94i, 24Mbps (4:2:0 8-bit LongGOP) (Dolby Audio) (Sensor output is 29.97fps)
59.94i, 17Mbps (4:2:0 8-bit LongGOP) (Dolby Audio) (Sensor output is 59.94fps)
23.98p, 24Mbps (4:2:0 8-bit LongGOP) (Dolby Audio)

MP4: High speed video

When Creative Video Mode is selected.: [4K] 3840x2160
29.97p (Sensor output is 60fps)
23.98p (Sensor output is 48fps)

[FHD] 1920x1080
29.97p (Sensor output is 180fps / 120fps)

Continuous recordable time

Motion picture: Approx. 150 min (rear monitor), 140 min (LVF) in [AVCHD/FHD/60p]

Actual recordable time

Motion picture: Approx. 75 min (rear monitor), 70 min (LVF) in [AVCHD/FHD/60p]

Viewfinder...

Type

OLED Live View Finder

Pixels

Approx. 5,760k dots

Field of view / Magnification

Approx. 100% / Approx. 0.78x with 50 mm lens at infinity; -1.0 m^{-1} , when the aspect ratio is set to 3:2

Eye point / Diopter adjustment

Approx. 21 mm at infinity; -1.0 m^{-1} / $-4.0 - +2.0$ (dpt)

Eye sensor

Yes

Display speed

120fps / 60fps

Display time lag

Approx. 0.005sec

Rear Monitor...

Type

TFT LCD monitor with static touch control

Monitor size

Triaxial tilt, 3.2-inch (8.0cm), 3:2 aspect

Pixels

Approx. 2,100k dots

Field of view

Approx. 100%

Status LCD...

Status LCD

Yes

Focus...

Type

Contrast AF system

DFD technology

Yes

Focus mode

AFS (Single) / AFC (Continuous) / MF

AF mode

Auto Detection (Face, Eye, Body, Animal) / Tracking / 225-Area / Zone (Vertical/Horizontal) / Zone (Square) / Zone (Oval) / 1-Area+ / 1-Area / Pinpoint / Custom 1, 2, 3
(Full area touch is available) (Scalable AF frame size and flexible AF position)

AF detective range

EV -6 – 18 (F1.4, ISO100 equivalent, AFS)

AF custom setting

AF Sensitivity, AF Area Switching Sensitivity, Moving Object Prediction

AF assist lamp

Yes

AF lock

Set the Fn button in custom menu to AF lock

Post Focus / Focus Stacking

Yes / Yes

Others

AF-ON, Shutter AF, Half Press Release, Focus/Shutter Priority, Quick AF, Continuous AF (during motion picture recording), Eye Sensor AF, AF-Point Scope Setting, AF+MF, MF Guide, MF Assist, Touch MF Assist, Focus Peaking, Touch AF/AE Function, Touch Pad AF, Touch Shutter, Focus Switching for Vert/Hor, Focus Ring Lock, Show/Hide AF Mode

Exposure Control...

Light metering system

1,728-zone multi-pattern sensing system

Light metering mode

Multiple / Center Weighted / Spot / Highlight Weighted

Metering range

EV0-18 (F2.0 lens, ISO100 equivalent)

ISO sensitivity

(Standard output sensitivity): Auto / 50 / 100 / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 25600 / 51200 (Changeable to 1/3 EV step)

Exposure mode

Program AE / Aperture Priority AE / Shutter Priority AE / Manual Exposure

Exposure compensation

1/3 EV step +/-5EV (+/-3EV for motion picture)

AE lock

Set the Fn button in custom menu to AE lock

Image Stabilization System...

Image Stabilization System

Image sensor shift type (5-axis / 5.5-stop (Based on the CIPA standard

Dual I.S. (6.0-stop Dual I.S. 2 compatible) (Based on the CIPA standard

White Balance...

White balance

AWB / AWBc / AWBw / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 /

Color temperature setting 1, 2, 3, 4

White balance adjustment

Blue/Amber bias, Magenta/Green bias

Color temperature setting

2500-10000K in 100K

Shutter...

Type

Focal-plane shutter

Shutter speed

Still image: Bulb (Max. 30 minutes), 1/8,000 – 60

Electronic front curtain shutter: Bulb (Max. 30 minutes), 1/2,000 – 60

Electronic shutter: Bulb (Max. 60 sec), 1/16,000 – 60

Motion picture: 1/16,000 – 1/25

Shutter life

Approx. 400,000 images

Self timer

10sec, 3 images / 2sec / 10sec

Remote control

Remote control by DMW-RS2 (sold separately)

Silent mode / Shutter type

Yes / Yes (Auto / Mechanical / Electronic front curtain / Electronic / Electronic+NR)

Bracket...

AE bracket

3, 5, 7 images in 1/3, 2/3 or 1 EV step, max. +/-3 EV, single/burst

Aperture bracket

3, 5 or all positions in 1 EV step

Focus bracket

1 to 999 images, focus steps can be set in 10 levels

White balance bracket

3 images in blue/amber axis or in magenta/green axis, color temperature setting

Burst Shooting...

Burst speed

Mechanical shutter / Electronic front curtain shutter

AFS/MF: H: 9 frames/sec, M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View)

AFC: H: 6 frames/sec (with Live View), M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View)

Burst speed (Contd.)

Electronic shutter

AFS/MF: H: 9 frames/sec, M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View)

AFC: H: 5 frames/sec (with Live View), M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View)

Number of recordable images

RAW: More than 40 images

RAW+JPEG: More than 35 images

JPEG: More than 50 images

6K Photo / 4K Photo...

Burst speed

6K PHOTO: 30 frames/sec

4K PHOTO: 60 frames/sec, 30 frames/sec

Exif information

Yes (Each JPEG image cropped out of the 6K/4K burst file complies with EXIF.)

Flash...

Flash type

TTL External Flash (sold separately)

Flash mode

Auto / Auto/Red-eye Reduction / Forced On / Forced On/Red-eye Reduction / Slow Sync. / Slow Sync./Red-eye Reduction / Forced Off

Flash synchronization

1st Curtain Sync, 2nd Curtain Sync.

Flash output adjustment

1/3EV step +/-3EV

Synchronization speed

Less than 1/320 second

Wireless control

Yes (When using DMW-FL200L / FL360L / FL580L (sold separately)), Wireless Channel:

1ch/2ch/3ch/4ch

Flash sync socket

Yes

Extra Tele Conversion...

Extra Tele Conversion

2.0x (EX S), 1.4x (EX M)

Photo Style...

Photo Style

Standard / Vivid / Natural / Flat / Landscape / Portrait / Monochrome / L. Monochrome / L. Monochrome D / Cinelike D / Cinelike V / Like709 / Standard (HLG) / Monochrome (HLG) / My Photo Style 1-10

Picture adjustment

Contrast / Highlight / Shadow / Saturation / Color Tone / Hue / Filter Effect / Grain Effect / Sharpness / Noise Reduction / ISO / WB

Filter...

Filter

Expressive / Retro / Old Days / High Key / Low Key / Sepia / Monochrome / Dynamic Monochrome / Rough Monochrome / Silky Monochrome / Impressive Art / High Dynamic / Cross

Process / Toy Effect / Toy Pop / Bleach Bypass / Miniature Effect / Soft Focus / Fantasy / Star Filter / One Point Color / Sunshine

Function Button...

REC

Exposure Comp. / Sensitivity / White Balance / Photo Style / Metering Mode / Aspect Ratio / Picture Quality / Picture Size / HLG Photo / High Resolution Mode / 1 Shot Spot Metering / Long Exposure NR / Min. Shutter Speed / 1 Shot RAW+JPG / i.Dynamic Range / Filter Effect / One Push AE / Touch AE / Exposure Mode / AF Mode/MF / AF Custom Setting(Photo) / AF Custom Setting(Video) / Focus Peaking / Focus Peaking Sensitivity /

REC (Contd.)

1-Area AF Moving Speed / Focus Ring Lock / AE LOCK / AF LOCK / AF/AE LOCK / AF-ON / AF-Point Scope / Focus Area Set / Flash Mode / Flash Adjust. / Wireless Flash Setup / Drive Mode / 1 Shot "6K/4K PHOTO" / Bracketing / Silent Mode / Image Stabilizer / Shutter Type / Ex. Tele Conv. / Flicker Decrease (Photo) / Post-Focus / Motion Pic. Rec Format / Motion Pic. Rec Quality / Sound Rec Level Disp. / Sound Rec Level Adj. /

REC (Contd..)

Mic. Directivity Adjust / Image Stabilizer / E-Stabilization (Video) / Boost I.S. (Video) / Q.MENU / Rec / Playback Switch / Video Record / LVF/Monitor Switch / LVF Magnification / Dial Operation Switch / Preview / Constant Preview / Level Gauge / Histogram / Photo Grid Line / Live View Boost / Monochrome Live View / Night Mode / LVF/Monitor Disp. Style / Photo/Video Preview /

REC (Contd...)

Zebra Pattern / HLG View Assist(Monitor) / HLG View Assist (HDMI) / Sheer Overlay / I.S. Status Scope / Focus Ring Control/ Zoom Control / Destination Card Slot / Wi-Fi / No Setting / Restore to Default

PLAY

Magnify from AF Point / HLG View Assist(Monitor) / RAW Processing / 6K/4K PHOTO Bulk Saving / Delete Single / Protect / Rating 1, 2, 3, 4, 5 / Copy / Rec/Playback Switch / LVF/Monitor Switch / Video Record / Night Mode / Card Slot Change / Wi-Fi / Send Image (Smartphone) / HLG View Assist (HDMI) / 6K/4K Photo Play / No Setting / Restore to Default

Fn Lever...

Fn Lever

AF Mode / Photo Style / Picture Quality / Long Exposure NR / Focus Peaking / Bracketing / Silent Mode / Image Stabilizer / Shutter Type / 6K/4K PHOTO (Pre-Burst) / Focus Ring Lock / Touch Screen / Touch Pad AF / Auto Review (Photo) / Live View Boost / Night Mode / Sheer Overlay / Front/Rear/Control Dial Lock / No Setting / Restore to Default

Level Gauge...

Level Gauge

Yes

OSD Language...

OSD Language

Please refer to "OSD" Sheet

Print...

Print

PictBridge compatible

Interface...

USB

SuperSpeed USB 3.1 Gen1 Type-C

HDMI

Monitor-through

4:2:2 8bit (Except for [4K/60p]) / 4:2:0 8bit

Playback

HDMI TypeA / VIERA Link

Video: Auto / 4K/60p / 4K/30p / 1080p / 1080i / 720p / 480p

Audio: Stereo

Audio video output

No

Remote input

Diameter: 2.5mm

External microphone

External audio device input: 3.5mm for external microphone / external audio device

MIC (Plug-in Power) / MIC / LINE is selectable.

Stereo/Lens Auto/Shotgun/Super Shotgun/Manual is selectable when attaching DMW-MS2 (sold separately).

Headphone output

Diameter: 3.5mm

Microphone

Stereo, Wind Noise Canceller: OFF / Low / Standard / High

Speaker

Monaural

Card slot

Slot 1: XQD Memory Card

Slot 2: SD Memory Card, SDHC Memory Card, SDXC Memory Card

Wireless...

Wi-Fi

2.4GHz (STA/AP) (IEEE802.11b/g/n)

5GHz (STA) (IEEE 802.11a/n/ac)

Bluetooth

Bluetooth v4.2 (Bluetooth Low Energy (BLE))

Dust And Splash Resistant...

Dust And Splash Resistant

Yes

Power...

Battery

Li-ion Battery Pack (7.4V, 3050mAh, 23Wh) (bundled)

USB power supply, USB power charging

Battery life (CIPA standard)

When using XQD memory card: Approx. 360 images (rear monitor), 340 images (LVF), 1,100 images (Power Save LVF mode) with S-R24105

When using SD memory card

Approx. 380 images (rear monitor), 360 images (LVF), 1,150 images (Power Save LVF mode) with S-R24105

Battery grip

DMW-BGS1 (sold separately)

Operating Environment...

Operating temperature

-10 Degree C to 40 Degree C (14 Degree F to 104 Degree F)

Operating humidity

10%RH to 80%RH

Dimensions / Weight...

Dimensions (W x H x D)

Approx. 5.86 x 4.33 x 3.81" (148.9 x 110.0 x 96.7mm) / h (excluding protrusions)

Weight

Approx. 2.25 lb (1,020g) / (XQD Memory Card x 1, Battery, Body)

Approx. / 2.24 lb (1,016g) (SD Memory Card x 1, Battery, Body)

Approx. 1.98 lb (898g) (Body only)